REMARKS

Claims 1 and 3-37 are all the claims pending in the application.

Amended Claim 1 finds support by the description at page 4, lines 2-10, of the specification.

No new matter has been added.

Referring to Section No. 2 at pages 2-4 of the Office Action, Claims 1, 3-4, 7-10, 12, and 18-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,597,012 ("US '012").

Applicants respectfully traverse.

US '012 discloses boron atom-containing compounds represented by formula (I). Example compounds encompassed by formula (I) are disclosed at columns 6-9 of US '012. Boron is clearly an essential feature of the compounds of US '012.

Claim 1, on the other hand, requires the light emitting element to comprise at least one organic layer which includes a light emitting layer, and which is disposed between a pair of electrodes, wherein at least one layer of the at least one organic layer contains at least one compound consisting of carbon, fluorine, hydrogen, and nitrogen, and wherein the compound contains hydrogen atoms in an amount not greater than one hydrogen atom per six carbon atoms. Thus, Claim 1 excludes boron from the at least one compound, and likewise excludes the compound of formula (I) of US '012.

For the foregoing reason, US '012 does not disclose each and every element of the light emitting element of Claim 1, as required by §102. Therefore, Claim 1 is not anticipated.

Furthermore, each of Claims 3-4, 7-10, 12, and 18-19 depends from Claim 1. Thus, US '012 does not disclose the light emitting element of each of Claims 3-4, 7-10, 12, and 18-19 for at least the same reason as noted above with respect to Claim 1.

Reconsideration and withdrawal of the §102 rejection of Claims 1, 3-4, 7-10, 12, and 18-19 is requested.

Referring to Section No. 4 at pages 4-7 of the Office Action, Claims 1, 3-4, 20-22, 24-27, and 36-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,824,891 ("US '891").

Applicants respectfully traverse.

Of the rejected claims, Claims 1 and 20 are independent. Claim 1 requires a light emitting element to comprise at least one organic layer which includes a light emitting layer, and which is disposed between a pair of electrodes, wherein at least one layer of the at least one organic layer contains at least one compound consisting of carbon, fluorine, hydrogen, and nitrogen, and wherein the compound contains hydrogen atoms in an amount not greater than one hydrogen atom per six carbon atoms. Claim 20 requires a light emitting element to comprise at least one organic layer which includes a light emitting layer, and which is disposed between a pair of electrodes, wherein at least one layer of the at least one organic layer contains at least one compound consisting of carbon, fluorine and nitrogen.

The Examiner acknowledges at the bottom of page 5 of the Office Action that US '891 does not specifically teach a fluorine-containing compound. However, the Examiner points out that US '891 teaches a compound of formula (C-II) at column 22, wherein R^{C11}, R^{C12}, and R^{C13} of the compound may have a halogen as a substituent. The Examiner notes that fluorine is a halogen. The Examiner thus concludes that "it would have been obvious to one of ordinary skill in the art to use the teaching of Okada as claimed, because the halogen including fluorine is well known in the art or periodic table Group VIIa."

Applicants respectfully disagree with the Examiner's conclusion.

The fact that a claimed species or subgenus may be encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *See*, In re Baird, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). Instead, to establish a *prima facie* case of obviousness in a genus-species chemical composition situation, as in any other 35 U.S.C. § 103

case, it is essential that there be some motivation or suggestion to make the claimed invention, i.e., to select the claimed species or subgenus from the disclosed prior art genus. *See*, In re Brouwer, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996); In re Ochiai, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995). One factor to consider is the number of species encompassed by the genus taking into consideration all of the variables possible and the amount of guidance provided for arriving at the claimed species or subgenus. In re Deuel, 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995).

US '891 does not provide the necessary motivation or suggestion to select the presently claimed compounds from its disclosure, including the compounds represented by formula (C-II) at column 22. Instead, US '891 teaches a compound of formula (C-II) encompassing a myriad number of species and does not guide one of skill in the art to the presently claimed compounds.

Formula (C-II) of US '891 includes R^{C11}, R^{C12}, and R^{C13}, which have the same meaning as R_1 and R_2 in formula (A-II). Applicants refer to column 22, lines 35-50. Thus, R^{C11}, R^{C12}, and R^{C13} may be a hydrogen atom, an aliphatic hydrocarbon group, an aryl group or a heterocyclic group, and the heterocyclic group may contain a nitrogen atom, an oxygen atom, a sulfur atom or a selenium atom. Applicants refer to column 8, line 50, through column 9, line 20.

In order to arrive at the claimed invention from formula (C-II), the Examiner relies on the teaching in US '891 that R^{C11}, R^{C12}, and R^{C13} may have a substituent, including those recited as R, preferably an aliphatic hydrocarbon group, an aryl group, a heterocyclic group, an amino group, and a halogen atom, still preferably an alkyl group and an amino group. Applicants refer to column 22, line 50-55.

The number of possible options that US '891 teaches as a substituent for R^{C11}, R^{C12}, and R^{C13} is staggering. For example, Applicants refer to the near-infinite list of possibilities identified as R at column 5, line 1, through column 6, line 32. Even the preferred list of substituents for R^{C11}, R^{C12}, and R^{C13} totals five groups that encompass myriad possibilities (an aliphatic hydrocarbon group, an aryl group, a heterocyclic group, an amino group, and a halogen

atom), and even if one of skill in the art were to choose a halogen, there are at least four options to choose from the group of halogens.

Besides the near-infinite number of possible options that US '891 teaches as a substituent for R^{C11}, R^{C12}, and R^{C13}, US '891 does not motivate or guide one of ordinary skill in the art to select a fluorine substituent. Importantly, the most preferred teaching in US '891 for the substituent of R^{C11}, R^{C12}, and R^{C13} does not include a halogen (instead, it is an alkyl group or an amino group).

Applicants respectfully submit that the motivation identified by the Examiner for arriving at the claimed invention ("halogen including fluorine is well known in the art or periodic table Group VIIa") is insufficient to establish a *prima facie* case of obviousness. If the present §103 rejection is maintained in a subsequent Office Action, Applicants request that the Examiner (i) provide express fact-findings relating to the Graham v. John Deere, 383 U.S. 1, 148 USPQ 459 (1966), factors and (ii) specifically articulate what teachings or suggestions in the prior art would have motivated one of ordinary skill in the art to select the claimed compounds. *See*, MPEP §2144.08.

For the foregoing reason, US '891 does not teach or suggest the light emitting elements of independent Claim 1 and Claim 20, as required by §103.

Furthermore, each of Claims 3-4, 20-22, 24-27, and 36-37 depends from either Claim 1 or Claim 20. Thus, US '891 does not teach the light emitting element of each of Claims 3-4, 20-22, 24-27, and 36-37 for at least the same reasons as noted above with respect to Claims 1 and 20.

Reconsideration and withdrawal of the §103 rejection of Claims 1, 3-4, 20-22, 24-27, and 36-37 is requested.

Referring to Section No. 5 at page 7 of the Office Action, Claims 5-6 and 23-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US '891 in view of U.S. Patent No. 6,166,125 ("US '125").

Claims 5-6 and 23-24 depend from independent Claims 1 and 20, respectively.

Thus, the combination of US '891 and US '125 does not teach the light emitting element of each of Claims 5-6 and 23-24 for at least the same reasons as noted above with respect to Claims 1 and 20. In this regard, US '125 does not cure the deficiencies of US '891 noted above.

Reconsideration and withdrawal of the §103 rejection of Claims 5-6 and 23-24 is requested.

Referring to Section No. 6 at pages 7 and 8 of the Office Action, Claims 11 and 13-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US '012 in view of Applicant Admitted Prior Art (APA).

Claims 11 and 13-17 depend from independent Claim 1.

Thus, US '012 does not disclose the light emitting element of each of Claims 11 and 13-17 for at least the same reason as noted above with respect to Claim 1. In this regard, APA does not cure the deficiencies of US '012 noted above.

Reconsideration and withdrawal of the §103 rejection of Claims 11 and 13-17 is requested.

Referring to Section No. 7 at pages 8 and 9 of the Office Action, Claims 28-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US '891 in view of US '012.

Claims 28-31 depend from independent Claim 20.

Thus, the combination of US '891 and US '012 does not teach the light emitting element of each of Claims 28-31 for at least the same reasons as noted above with respect to Claim 20. In this regard, US '012 does not cure the deficiencies of US '891 noted above.

Reconsideration and withdrawal of the §103 rejection of Claims 28-31 is requested.

Referring to Section No. 8 at pages 9 and 10 of the Office Action, Claims 32-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US '891 in view of APA.

Claims 32-35 depend from independent Claim 20.

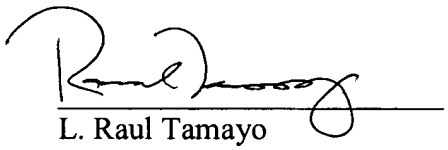
Thus, the combination of US '891 and APA does not teach the light emitting element of each of Claims 32-35 for at least the same reasons as noted above with respect to Claim 20. In this regard, APA does not cure the deficiencies of US '891 noted above.

Reconsideration and withdrawal of the §103 rejection of Claims 32-35 is requested.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



L. Raul Tamayo
Registration No. 47,125

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: June 27, 2005